

Office of Governor Mark Gordon

Wyoming Coal, HB 200, and CO2

July 29th - 30th, 2025

Minerals, Business & Economic Development



Wyoming Coal Production Today

- Wyoming produces more coal than any other state
 - Accounts for 40% of all U.S. production (Wyoming State Geological Survey)
 - 11 mines are located in Campbell County alone (Wyoming State Geological Survey)
- In 2023 - 2024, renewables surpassed coal in percentage of energy produced by 5.2% (Energy Information Administration)
 - Fossil fuels still provide 60% of all U.S. energy production (Energy Information Administration)
- Thermal coal use has already declined by over 40% since 2015
 - No new coal fired power plants are being built in the United States currently
- There are various options being explored by the University of Wyoming School of Energy Resources to help our coal industry

Wyoming Coal Production Today

- 17 power plants in 11 states that use Wyoming coal have announced they are delaying their closure dates
- In 2024 these plants consumed 30.5 million tons of coal
- The total revenue earned from this 30.5 million tons was \$90,051,250.00
- The total tax revenue from the delays in closures of these 17 coal plants (based on 2024 shipments) is \$682,913,250.00
- Coal production in 2024 was 190,743,727 tons according to the State Inspector of Mines Annual Report
- Coal employment was 4,300 at the end of 2024 (State Inspector of Mines Annual Report)
- Wyoming produced 2.7 million more tons over first quarter of 2024

The Future of Wyoming Coal Generation

Plant	Age	Closure and/or Gas Conversion	New Dependable Capacity (MW)	Coal Usage (million tons)
Wyodak	47	2045+	335	1.1
Neil S II	29	2025- Gas (Dual fuel)	90	0.5
Dave Johnston I	66	2029- Gas/ 2045+	99	0.4
Dave Johnston II	65	2029- Gas/ 2045+	106	0.4
Dave Johnston III	61	2027	220	0.8
Dave Johnston IV	53	2045+	330	1
Jim Bridger I	51	2024- Gas / 2045+	531	N/A
Jim Bridger II	50	2024- Gas / 2045+	539	N/A
Jim Bridger III	49	2030- CCUS / 2042	523	1
Jim Bridger IV	46	2030- CCUS / 2042	526	1
Naughton I	62	2026- Gas / 2042	156	0.5
Naughton II	57	2026- Gas / 2045+	201	0.6
Dry Fork	13	--	385	1.9
LRS I	44	--	570	3
LRS II	43	--	570	3
LRS III	42	--	570	3
WYGen I	23	2030's- Dual fuel	91	0.5
WYGEN II	16	2030's- Dual fuel	95	0.5
WYGen III+	14	2030's- Dual fuel	110	0.6

Wyoming Electricity Market Alone Won't Save the Coal Industry

- If all of Wyoming's electricity were to be produced by coal, we would need approximately 9,406,548 tons per year (Dawson, University of Wyoming School of Energy Resources)
- The State Inspector of Mines Annual Report coal production in 2024 was 190,743,727 tons
- One large mine in Campbell County produced about 60 million tons of coal
- There is not enough electricity consumed in Wyoming to keep the coal industry alive

The Clean Power Plan

- The Obama administration introduced the Clean Power Plan in 2015 to set emission goals based on the goals the EPA believed companies could achieve (Guillén 2023)
- The Supreme Court ruled that the EPA was overstepping their bounds and the plan was repealed in 2019
 - The *2009 Endangerment Finding* still stood
- The Biden Administration introduced the Clean Power Plan Version 2 in 2024 which set stricter emissions goals
 - Power plants could 1) shut down, 2) switch to natural gas by 2030, or 3) reduce emissions through carbon capture and storage

Trump Administration Changes Course on Coal Fired Plants

- EPA Administrator Zeldin encourages the U.S. Supreme Court to revisit the Endangerment Finding (EPA, March 2025)
- Changing emphasis from only climate concerns to include economic concerns
- EPA Administrator Zeldin announces plan to rescind Clean Power Plan Version 2 along with other anti-coal regs (EPA, June 2025)
- President Trump Executive Orders
 - EO14154- Unleashing American Energy (January 2025)
 - EO14156- Declaring a National Energy Emergency (January 2025)
 - EO14260- Protecting American Energy from State Overreach (April 2025)
 - EO14261- Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241 (April 2025)
- Some immediate relief some plants ordered to stay open for 60 days
- Likely all will be challenged in court
- Unsure of what/when final action will be. Certainty is likely 1 - 2 years out.

Many Wyoming Customer States Have Renewable Portfolio Standards & Zero Carbon Mandates

2023 TOTAL Wyoming Coal Sales¹	24 States	210.4 M tons	
Sales to Non-RPS states	13 States	75.0 M tons	35.6%
Sales to RPS states (excluding Zero Carbon Mandate States)	4 States	83.3 M tons	39.6%
Sales to Zero Carbon Mandate states ¹	7 States	52.0 M tons	24.7%

¹ Excludes 22,242 tons to California

Uses for CO₂

Is CO₂ a product? How can it be used?

- Yes, CO₂ can be sold to various different companies
 - Food and beverage- carbonation (often found in sodas)
 - Chemical companies- fertilizers
 - Enhanced Oil Recovery
- CO₂ sold and purchased for enhanced oil recovery is considered a valuable commodity!
- Can also be stored in pore space
 - **State Lands**- 11,129.19 acres leased for carbon sequestration
 - **Private**- 287,472.78 acres leased for carbon sequestration
 - **BLM**- 1,126.91 acres leased for carbon sequestration
 - **Other**- 782.62 acres leased for carbon sequestration

Total Acres Leased:
300,511.5

Sources of CO₂

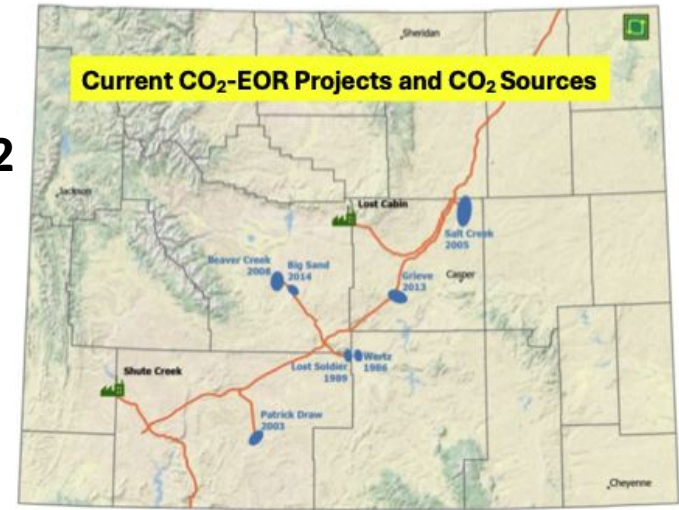
- ExxonMobil has the largest CO₂ capture project in the world near LaBarge, WY
 - Comes with gas and helium production
- Used for enhanced oil recovery and reinjected underground
- Two major sources of CO₂ - ExxonMobil and Lost Cabin
- Ethanol production outside of Wyoming is another source of CO₂
- Wyoming could create more CO₂ from CO₂ capture on coal and gas fired power plants

Enhanced Oil Recovery Using CO₂

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- The 1st CO₂-EOR flood in WY was Lost Soldier/Wertz in 1986
- 7 developing fields (1986 - 2024)
- CO₂-EOR produced 173 million barrels of incremental oil
 - Associated tax revenue: \$1.16 billion
- **Average Wyoming oil price (1986 - 2024): \$51.57 a barrel**
- **Average severance and ad valorem tax rate: 13%**

All information and graphics on this slide are credited to Lon Whitman, Executive Director of the Enhanced Oil Recovery Institute



In Wyoming, CO₂ for EOR applications comes from the ExxonMobil Shute Creek Capture Project and the Contango Lost Cabin Gas plant. Currently about 370 MMcfd is available for EOR.

Incremental Recovery from CO₂ Floods in Wyoming

Field Name	Formation	Incremental Oil MMBO (through 2024)
Lost Soldier/Wertz (1986)	Tensleep	65.4
Salt Creek (2003)	Wall Creek 1 & 2	55.0
Patrick Draw (2004)	Almond	30.8
Beaver Creek (2008)	Madison	15.9
Grieve (2013)	Muddy	1.4
Big Sand Draw (2014)	Tensleep	4.4
		173 Million Barrels

The CO₂ Market is Influenced by Government Policies

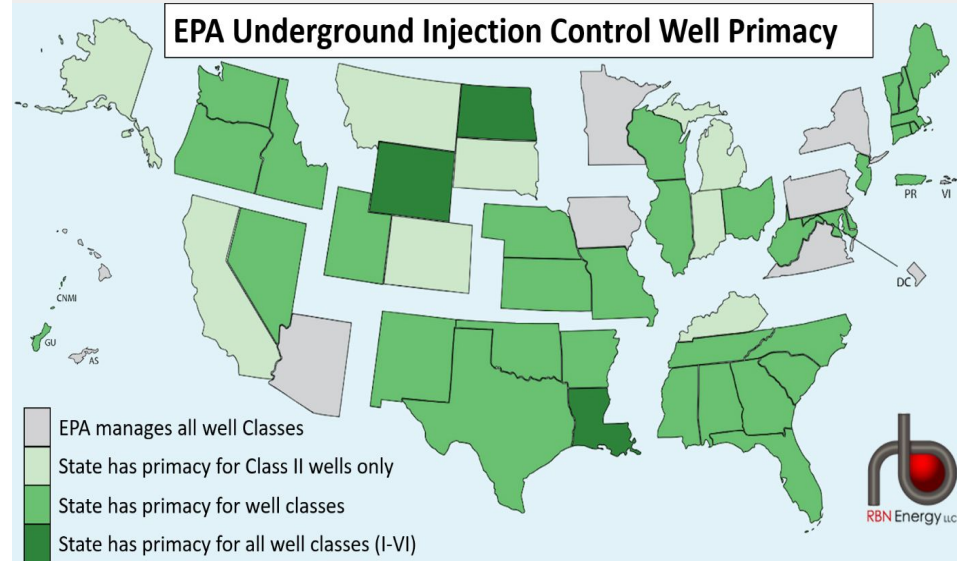
- 45Q Tax Credit

- Preserved and enhanced in part by the One Big Beautiful Bill Act
- Owners can broadly transfer their tax credit to another entity
- Must demonstrate secure underground geologic storage
- Must begin construction before Jan 1, 2033
- Minimum capture amount for EGUs: 18,750 tons CO₂/year
- **Point-source capture to dedicated geologic storage: \$85/metric ton**
- **Direct air capture to dedicated geologic storage: \$180/metric ton**
- **Point-source capture used for enhanced oil recovery: \$85/metric ton**
- **Direct air capture used for enhanced oil recovery: \$180/metric ton**

Class VI Wells & State Primacy

What is Primacy?

- Wyoming is one of 4 states that has primacy for Class VI Wells
 - Without carbon capture technology research, we could lose our state primacy
- West Virginia was just granted primacy for a Class VI program (1/21/2025)



Lindquist, J. (2024, January 23). TAKE CONTROL - More states seeking primacy over CO2 injection wells to bypass EPA backlog. RBN Energy LLC.

<https://rbnenergy.com/take-control-more-states-seeking-primacy-over-co2-injection-wells-to-bypass-epa-backlog>

SER's Integrated Test Center (ITC)

- The ITC is located outside Gillette, Wyoming and opened in 2018
- The center provides space for researchers to test Carbon Capture, Utilization and Sequestration (CCUS) technologies
 - The ITC is one of the *only* facilities *around the world* that tests CCUS technologies
- The center also provides a space for testing flue gas technologies and turning it into a marketable product
 - The ITC is one of *two* facilities that tests flue gas technologies
- Technology neutral test site for Carbon Capture technologies
- Funding provided by public-private partnerships provided by Wyoming and rural electric cooperatives

HB 200: An Overview

- *See handout*
- Requires regulated utilities to evaluate carbon capture on plants - does not require installation
- Encourages the use of partners
- Same concept has 2019 SF 159
- Recoverable costs of evaluation and studies capped at 2% - still needs to be approved by PSC
- Allowed utilities to market CO₂ - could be used in rate of return

Is HB 200 Getting Results?

- It is working! Without HB200 utilities probably not be analyzing the costs and benefits of carbon capture to extend the life of coal fired plants
- Black Hills and PacifiCorp analyzed the costs at their units. When further study was needed, Energy Matching Funds assisted to keep consumer cost down.
- PacifiCorp has determined carbon capture to be in the preferred portfolio for units Jim Bridger 3 & 4
- The pre-FEED study at Dave Johnson is at no cost to consumer
- Without HB200 Black Hills wouldn't have explored producing hydrogen from coal
- Cheyenne Light and Fuel wouldn't be looking at using CO₂ to produce more gas from coal beds

HB 200

Is it still necessary?

- Yes, federal policy has not officially changed
- Market preferences continue to pressure coal
 - Wyoming lost about 900 coal mining jobs in 2024 (around 20%) and the Department of Workforce Services expects that downward trend to continue
- The President's support is welcome now, but our legacy industry needs long-term resiliency
- Finding state solutions are imperative, and the Wyoming way
- State solutions can be shared with coal customers

Potential Solutions

Has it accomplished its purpose?

- Results are coming, but more time is needed
- Preference is not to repeal HB 200
- Rather than repeal we suggest a sunset date of January 1, 2027
 - Change of federal regulations/litigation could easily last through 2026
 - This will allow Wyoming utilities to finish up their HB200 evaluations

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